

extension arm 100 and the device is minimized.

While only certain features of the invention have been illustrated and described herein, many modifications, substitutions, changes or equivalents will now occur to those skilled in the art. It is therefore, to be understood that the appended claims are intended to cover all such modifications and changes that fall within the true spirit of the invention.

### Claims

What is claimed is:

1. An extension arm for adjustably mounting a device to a support mount, said extension arm comprising:
  - a forearm extension having a first end for attachment to the device and a second end;
  - a first end cap including a first end cap body and a first end cap shaft, said first end cap shaft pivotably attached to the support mount;
  - a second end cap including a second end cap body and a second end cap shaft, said second end cap shaft pivotably attached to the second end of said forearm extension;
  - an upper channel having a first end, a second end, a first roller disposed on the first end and configured to be pivotably attached to said first end cap, and a second roller disposed on

the second end and configured to be pivotably attached to said second end cap;

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a lower channel having a first end, a second end, a third roller disposed on the first end and configured to be pivotably attached to said first end cap, and a fourth roller disposed on the second end and configured to be pivotably attached to said second end cap; and

60460 625070  
a gas spring rotatably attached at a first end to said upper channel and adjustably attached at a second end to said first end cap, wherein said gas spring is configured to retain said upper channel, said lower channel, said first end cap and said second end cap in a parallelogram shape when the device is positioned.

2. The extension arm of claim 1, wherein said first end cap and said second end cap are identical.

3. The extension arm of claim 1, wherein the second end of said forearm extension is a coupling.

4. The extension arm of claim 1, wherein the first end of said forearm extension is a coupling.

5. The extension arm of claim 1, wherein all of said rollers of said upper channel are integrally cast with said upper

channel so as to be an integral part of said upper channel and all of said rollers of said lower channel are integrally cast with said lower channel so as to be an integral part of said lower channel.

6. The extension arm of claim 1, wherein a first end of said first end cap body is connected to said first end cap shaft and a second end of said first end cap body has a hole therein.

<sup>16</sup>  
~~7.~~ The extension arm of claim 1, wherein a first end of said second end cap body is connected to said second end cap shaft and a second end of said second end cap body has a hole therein.

*Sub 23*  
8. The extension arm of claim 6, wherein said first end cap further includes:

a clevis pivotably attached to the second end of said gas spring; and

a rod in threaded engagement with said clevis, wherein said clevis is configured to slide within said first end cap when said rod rotates around its axial centerline.

<sup>8</sup>  
~~9.~~ The apparatus according to claim ~~8~~<sup>7</sup>, wherein a first end of said rod is inserted through said hole in said first end cap

body.

Sub 94 10. The extension arm of claim 9, wherein the first end of said rod has a shaped opening and is configured to rotate around its axis when a shaped key is inserted in said shaped opening and is turned.

10 11. The extension arm of claim 8, wherein said rod has a shoulder adjacent to the first end, said shoulder having a diameter larger than a diameter of said hole in said first end cap body so that said shoulder abuts an inner surface of the second end of said first end cap body and retains the first end of said rod in said hole.

11 12. The extension arm of claim 10, wherein said first end cap further includes a pair of shelves separated by a groove.

12 13. The extension arm of claim 11, wherein said pair of shelves is disposed in said first end cap body adjacent to the first end.

15 14. The extension arm of claim 11, wherein each of said pair of shelves includes a self tapping screw hole disposed therein.

~~17~~<sup>15</sup>. The extension arm of claim 1, wherein said second end cap further includes a pair of shelves separated by a groove.

~~18~~<sup>16</sup>. The extension arm of claim ~~15~~<sup>17</sup>, wherein said pair of shelves is disposed in said second end cap body adjacent to the first end.

~~19~~<sup>17</sup>. The extension arm of claim ~~15~~<sup>17</sup>, wherein each of said pair of shelves includes a self tapping screw hole disposed therein.

~~13~~<sup>18</sup>. The extension arm of claim ~~13~~<sup>12</sup>, wherein a second end of said rod is rotatably secured within said groove in said first end cap, and is retained in place by a retainer clip fastened to said shelves.

~~14~~<sup>19</sup>. The extension arm of claim ~~18~~<sup>13</sup>, wherein said retainer clip is fastened to said pair of shelves by screws.

20. The extension arm of claim 1, wherein said upper channel has a threaded hole formed therein.

21. The extension arm of claim 20, wherein the second end

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of said gas spring is rotatably mounted to said upper channel via a ball stud threadedly mounted in said threaded hole in said upper channel.

22. The extension arm of claim ~~20~~, wherein said threaded hole is integrally cast with said upper channel so as to be an integral part of said upper channel.

23. The extension arm of claim 1, wherein said first end cap and said second end cap are fabricated from a zinc material.

24. The extension arm of claim 1, wherein said first end cap and said second end cap are cast molded.

25. The extension arm of claim 24, wherein said first end cap and said second end cap are made via interlocking molding.

26. The extension arm of claim 1, wherein the device is a flat-screen device.

27. The extension arm of claim 26, wherein the flat-screen device is a television.

28. The extension arm of claim 26, wherein the flat-screen

device is a computer monitor.

~~29~~ 29. The extension arm of claim ~~26~~, wherein said extension arm is configured so as to be substantially hidden behind the ~~flat screen~~ device when the ~~flat screen~~ device is positioned flat against a mounting surface.

~~30~~ 30. The extension arm of claim 1, wherein a lower surface of said lower channel has a cable channel aperture formed therein.

~~31~~ 31. The extension arm of claim 1, wherein all of said rollers have a hole therein at an axial centerline of said roller, said first end cap has a first pair of holes on an upper edge that align with said hole in said first roller and a second pair of holes on a lower edge that align with said hole in said third roller, and said second end cap has a first pair of hole on an upper edge that align with said hole in said second roller and a second pair of holes on a lower edge that align with said hole in said fourth roller.

Sub 95/ ~~32~~ 32. The extension arm of claim 31, wherein each said end cap is pivotably attached to each said channel by inserting a pin through each said hole in each said end cap into each said

as  
cont, respective hole in each said roller.

~~30~~  
33. The extension arm of claim 1, wherein said first end cap body further includes stops located within said first end cap body proximate to a first end and a second end.

~~31~~  
34. The extension arm of claim 1, wherein said first end cap body further includes a pair of trough walls within said first end cap body, the pair of trough walls forming a trough therebetween.

~~32~~  
35. The extension arm of claim 1, wherein said second end cap body further includes stops located within said second end cap body proximate to a first end and a second end.

~~33~~  
36. The extension arm of claim 1, wherein said second end cap body further includes a pair of trough walls within said second end cap body, the pair of trough walls forming a trough therebetween.

~~34~~  
37. The extension arm of claim 1, wherein said upper channel, said lower channel, said first end cap and said second end cap are pivotably attached in such a manner that said first end cap shaft and said second end cap shaft face opposite



directions.

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38. An extension arm for adjustably mounting a device to a support mount, said extension arm comprising:

a forearm extension having a first end for attachment to the device and a second end;

a first end cap pivotably attached to the support mount;

a second end cap pivotably attached to the second end of said forearm extension;

an upper channel having a first roller at a first end and a second roller at a second end, wherein said rollers are integrally cast with said upper channel, said first roller configured to be pivotably attached to said first end cap and said second roller configured to be pivotably attached to said second end cap;

a lower channel having a third roller at a first end and a fourth roller at a second end, wherein said rollers are integrally cast with said lower channel, said third roller configured to be pivotably attached to said first end cap and said fourth roller configured to be pivotably attached to said second end cap; and

a gas spring rotatably attached at a first end to said upper channel and adjustably attached at a second end to said first end cap, wherein said gas spring is configured to retain said

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Cont

channels and said end caps in a parallelogram shape when the device is positioned.

~~37~~ 39. The extension arm of claim ~~38~~ <sup>36</sup>, wherein a lower surface of said lower channel has a cable channel aperture formed therein.

~~38~~ 40. The extension arm of claim ~~39~~ <sup>37</sup>, wherein said cable channel aperture runs along a longitudinal centerline of said lower channel.

~~40~~ 41. The extension arm of claim ~~39~~ <sup>37</sup>, wherein said cable channel aperture has two opposite edges that are parallel to a longitudinal centerline of said lower channel.

~~41~~ 42. The extension arm of claim ~~39~~ <sup>37</sup>, wherein said cable channel aperture has two opposite ends, and at least one of the ends is rounded.

~~42~~ 43. The extension arm of claim ~~39~~ <sup>37</sup>, further comprising a cover that is removably attachable to said cable channel aperture.

~~43~~ 44. The extension arm of claim ~~38~~ <sup>36</sup>, wherein each of said

rollers of said upper and said lower channels have axial centerlines that are parallel to each other.

~~44~~ 45. The extension arm of claim ~~43~~ 44, wherein the axial centerlines of each of said rollers of said upper and said lower channels are perpendicular to a longitudinal centerline of each of said channels.

~~45~~ 46. The extension arm of claim ~~36~~ 36, wherein all of said rollers have a hole therein at an axial centerline of said roller, said first end cap has a first pair of holes on an upper edge that align with said hole in said first roller and a second pair of holes on a lower edge that align with said hole in said third roller, and said second end cap has a first pair of holes on an upper edge that align with said hole in said second roller and a pair of holes on a lower edge that align with said hole in said fourth roller.

~~47~~ 47. The extension arm of claim ~~46~~ 46, wherein each said end cap is pivotably attached to each said channel by inserting a pin through each said hole in each said end cap and into each said respective hole in each said roller.

48. The extension arm of claim ~~38~~ 38, wherein said first end

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Cap  
cap includes a first end cap body and a first end cap shaft, said first end cap shaft pivotably attached to the support mount, and said second end cap includes a second end cap body and a second end cap shaft, said second end cap shaft pivotably attached to the second end of said forearm extension.

~~48~~ 49. The extension arm of claim ~~36~~, wherein said upper channel has a threaded hole formed therein.

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~~48~~ 50. The extension arm of claim ~~49~~, wherein the second end of said gas spring is rotatably mounted to said upper channel via a ball stud threadedly mounted in said threaded hole in said upper channel.

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~~48~~ 51. The extension arm of claim ~~49~~, wherein said threaded hole is integrally cast with said upper channel so as to be an integral part of said upper channel.

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~~36~~ 52. The extension arm of claim ~~36~~, wherein said upper channel and said lower channel comprise a zinc material.

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~~36~~ 53. The extension arm of claim ~~36~~, wherein said upper channel and said lower channel are cast molded.

~~53~~ 54. The extension arm of claim ~~36~~ 38, wherein said upper channel and said lower channel are made via interlocking molding.

~~34~~ 55. The extension arm of claim ~~36~~ 38, wherein the second end of said forearm extension is a coupling.

~~39~~ 56. The extension arm of claim ~~38~~ 40, wherein the first end of said forearm extension is a coupling.

*File 98*  
57. An extension arm for adjustably mounting a device to a support mount, said extension arm comprising:

a forearm extension having means for attachment to the device disposed at a first end and a coupling disposed at a second end;

a first end cap pivotably attached to the support mount;

a second end cap pivotably attached to said coupling of said forearm extension;

an upper channel having a first roller at a first end and a second roller at a second end, wherein said first roller is configured to be pivotably attached to said first end cap and said second roller is configured to be pivotably attached to said second end cap;

a lower channel having a third roller at a first end and a fourth roller at a second end, wherein said third roller is

configured to be pivotably attached to said first end cap and said fourth roller is configured to be pivotably attached to said second end cap; and

*as any*  
a gas spring rotatably attached at a first end to said upper channel and adjustably attached at a second end to said first end cap, wherein said gas spring is configured to retain said upper channel, said lower channel, said first end cap and said second end cap in a parallelogram shape when the device is positioned.

*56*  
~~58~~. The extension arm of claim ~~57~~, wherein said second end coupling is a female coupling.

*59*  
~~59~~. The extension arm of claim 58, wherein said second end female coupling has a set screw contained in a sidewall of the coupling.

60. The extension arm of claim 58, wherein an inner surface of said second end female coupling has a plurality of grooves formed therein.

61. The extension arm of claim 57, wherein said means for connecting is a coupling.

*60*  
~~62~~. The extension arm of claim ~~61~~, wherein said first end

coupling is a female coupling.

~~61~~  
~~63~~. The extension arm of claim ~~62~~, wherein said first end female coupling has a set screw contained in a sidewall of the coupling.

*Sub 911*  
~~64~~. The extension arm of claim ~~62~~, wherein an inner surface of said first end female coupling has a plurality of grooves formed therein.

*64*  
~~65~~. The extension arm of claim 57, wherein said forearm extension includes a U-shaped channel disposed between said means for attachment and said second end coupling.

*64*  
~~66~~. The extension arm of claim ~~63~~, wherein said U-shaped channel is disposed so that an opening of said U-shaped channel points downward.

*Sub 911*  
~~67~~. The extension arm of claim ~~61~~, wherein said first end coupling has a first axial centerline and said end coupling has a second axial centerline and the first axial centerline and the second axial centerline are parallel to each other.

*66*  
~~68~~. The extension arm of claim ~~65~~, wherein the first axial

centerline and the second axial centerline are perpendicular to a longitudinal centerline of said U-shaped channel.

Sub 912 69. The extension arm of claim 68, wherein a centerline of said first end coupling and a centerline of said second end coupling are aligned with the longitudinal centerline of said U-shaped channel.

Sub 913 70. The extension arm of claim 69, wherein when the first axial centerline and the second axial centerline are vertically disposed, said U-shaped channel is disposed therebetween at an angle.

71. The extension arm of claim 69, wherein when the first axial centerline and the second axial centerline are vertically disposed, said U-shaped channel is horizontally disposed therebetween.

72. The extension arm of claim 68, wherein a lower surface of said U-shaped channel is aligned with a first edge of said first end coupling and a first edge of said second end coupling.

71 70 73. The extension arm of claim 72, wherein when the first axial centerline and the second axial centerline are vertically



disposed, said U-shaped channel is disposed therebetween at an angle.

~~72~~<sup>70</sup> 74. The extension arm of claim ~~72~~<sup>70</sup>, wherein when the first axial centerline and the second axial centerline are vertically disposed, said U-shaped channel is horizontally disposed therebetween.

75. An end cap for use in an extension arm that adjustably mounts a device to a support mount, said end cap comprising:

a partially enclosed housing having a first endwall, a second endwall and at least one sidewall, said first endwall having a hole contained therein;

a shaft connected to said second endwall; and

a pair of shelves disposed within said partially enclosed housing adjacent to said second endwall, said pair of shelves forming a groove therebetween.

76. The end cap of claim 75, wherein each of said shelves has self-tapping screw holes formed therein.

77. The end cap of claim 75, further comprising stops located within said partially enclosed housing proximate to said first endwall and said second endwall.

78. The end cap of claim 75, wherein said at least one sidewall is semicircular in shape and connects to said first endwall and said second endwall.

79. The end cap of claim 75, further comprising a pair of trough walls formed within said partially enclosed housing, said pair of trough walls forming a trough therebetween.

80. The end cap of claim 75, further comprising:  
a clevis having a hole therein;  
a rod in threaded engagement with said clevis, wherein said clevis is configured to slide within said end cap when said rod rotates around its axial centerline.

81. The end cap of claim 80, wherein said rod includes a first end having a shaped opening, a shoulder adjacent to the first end, a threaded portion, and a second end.

82. The end cap of claim 81, wherein the first end of said rod is located within said hole in said first endwall, and said shoulder of said rod abuts an inner surface of said first endwall.

83. The end cap of claim 81, wherein said rod is configured to rotate around its axis when a shaped key is inserted in said shaped opening and is turned.

84. The end cap of claim 81, wherein the second end of said rod is rotatably secured within said groove and is retained in place by a retainer clip fastened to said shelves.

85. The end cap of claim 84, wherein said retainer clip is fastened to said pair of shelves by screws.

86. The end cap of claim 75, wherein said partially enclosed housing, said shaft, and said pair of shelves are fabricated from a zinc material.

87. The end cap of claim 75, wherein said partially enclosed housing, said shaft and said pair of shelves are cast molded.

88. The end cap of claim 75, wherein said partially enclosed housing, said shaft and said pair of shelves are made via interlocking molding.

89. An upper channel for use in an extension arm that

adjustably mounts a device to a support mount, said upper channel comprising a body having a first roller at a first end and a second <sup>66</sup>roller at a second end, wherein said body and said rollers are integrally cast. <sup>cast</sup>

90. The upper channel of claim 89, wherein said body includes a threaded <sup>74</sup>hole formed therein.

91. The upper channel of claim 90, wherein said threaded hole is integrally cast with said body and said rollers.

92. The upper channel <sup>43</sup>of claim 90, further comprising a ball stud threadedly mounted to said threaded hole.

93. The upper channel of claim 92, further comprising a gas spring rotatably attached to said ball stud.

94. The upper channel of claim 89, wherein said body and said rollers are fabricated from a zinc material.

95. The upper channel of claim 89, wherein said body and said rollers are cast molded.

96. The upper channel of claim 89, wherein said body and

said rollers are made via interlocking molding.

97. The upper channel of claim 89, wherein each of said rollers have holes located at a respective axial centerline. } 102

98. A lower channel for use in an extension arm that adjustably mounts a device to a support mount, said lower channel comprising a body having a first roller at a first end and a second roller at a second end, wherein said body and said rollers are integrally cast.

99. The lower channel of claim 98, wherein a lower surface of said body has a cable channel aperture formed therein.

100. The lower channel of claim 99, wherein said cable channel aperture runs along a longitudinal centerline of said body.

101. The lower channel of claim 99, wherein said cable channel aperture has two opposite edges that are parallel to a longitudinal centerline of said body.

102. The lower channel of claim 99, wherein said cable channel aperture has two opposite ends, and at least one of the

ends is rounded.

103. The lower channel of claim 99, further comprising a cover that is removably attachable to said cable channel aperture.

104. The lower channel of claim 98, wherein said body and said rollers are fabricated from zinc material.

105. The lower channel of claim 98, wherein said body and said rollers are cast molded.

106. The lower channel of claim 98, wherein said body and said rollers are made via interlocking molding.

107. The lower channel of claim 98, wherein each of said rollers have holes located at a respective axial centerline.

108. A forearm extension for use in an extension arm that adjustably mounts a device to a support mount, said forearm extension comprising a body having a first coupling disposed at a first end and a second coupling disposed at a second end.

109. The forearm extension of claim 108, wherein said second

coupling has a set screw contained in a sidewall.

110. The forearm extension of claim 108, wherein an inner surface of said second coupling has a plurality of grooves formed therein.

111. The forearm extension of claim 108, wherein said first coupling has a set screw contained in a sidewall.

112. The forearm extension of claim 108, wherein an inner surface of said first coupling has a plurality of grooves formed therein.

113. The forearm extension of claim 108, wherein said body is U-shaped.

114. The forearm extension of claim 108, wherein a centerline of said first coupling and a centerline of said second coupling are aligned with a longitudinal centerline of said body.

115. The forearm extension of claim 108, wherein a lower surface of said body is aligned with a lower edge of said first coupling and a lower edge of said second coupling.

116. The forearm extension of claim 108, wherein said body is disposed at an angle between said first coupling and said second coupling when said first coupling and said second coupling are disposed such that an axial centerline of each is vertical.

117. The forearm extension of claim 108, wherein said body is horizontally disposed between said first coupling and said second coupling when said first coupling and said second coupling are disposed such that an axial centerline of each is vertical.

118. A method of forming an extension arm that adjustably mounts a device to a support mount, the method comprising:

forming an upper channel that includes a roller at each end and a threaded hole therein;

forming a lower channel that includes a roller at each end;

forming two identical endcaps having

a partially enclosed housing having a first endwall, a second endwall and at least one sidewall, wherein the first endwall contains a hole therein, and the second endwall has a shaft connected thereto, and

a pair of shelves disposed within the partially enclosed housing near the second endwall, the pair of shelves forming a groove therebetween;

forming a rod including a first end having a shaped opening,



a shoulder adjacent to the first end, a threaded portion, and a second end;

threading the rod through a hole in a clevis;

placing the first end of the rod within the hole in the first endwall of a first one of the end caps until the shoulder abuts an inner surface of the first endwall;

placing the second end of the rod within the groove in the first end cap;

securing the second end of the rod by placing a retainer over the rod and connecting the retainer to the shelves;

forming a forearm extension having a body, a first end for connecting to a second one of the end caps and a second end for connecting to the device;

threadedly mounting a ball stud in the threaded hole of the upper channel;

connecting one end of a gas spring to the ball stud and a second end of the gas spring to a fastening member of the clevis;

attaching the upper channel, the lower channel, the first end cap and the second end cap to form a parallelogram; and

connecting the first end of the forearm extension and the shaft of the second end cap.

119. The method of claim 118, wherein the upper channel, the lower channel, the first end cap and the second end cap are

attached in a manner such that the shaft of the first end cap and the shaft of the second end cap face opposite directions.

120. The method of claim 118, further comprising painting the forearm extension prior to said connecting the first end of the forearm extension;

painting an outer surface of the end caps prior to said placing the first end of the rod, said placing the second end of the rod, said securing the second end of the rod, said attaching the upper channel, and said connecting the first end of the forearm extension;

painting an outer surface of the upper channel prior to said connecting one end of a gas spring, and said attaching the upper channel; and

painting an outer surface of the lower channel prior to said attaching the upper channel.

121. The method of claim 120, further comprising drilling holes in a center of each upper channel roller subsequent to said painting an outer surface of the upper channel; and

drilling holes in a center of each lower channel roller subsequent to said painting an outer surface of the lower channel.

122. The method of claim 118, wherein said forming an upper channel includes integrally casting the upper channel including the rollers and the threaded hole contained therein.

123. The method of claim 122, wherein said integrally casting the upper channel includes integrally casting the upper channel from zinc.

124. The method of claim 118, wherein said forming a lower channel includes integrally casting the lower channel including the rollers.

125. The method of claim 124, wherein said integrally casting the lower channel includes integrally casting the lower channel from zinc.

126. The method of claim 118, wherein said forming a lower channel includes forming a lower channel with a roller at each end and a cable channel aperture in a lower surface.

127. The method of claim 126, further comprising placing a cover within the cable channel aperture.

128. The method of claim 118, wherein said forming two

identical endcaps includes integrally casting the two identical endcaps including the partially enclosed housing, the shaft, and the pair of shelves disposed within the partially enclosed housing.

129. The method of claim 128, wherein said integrally casting the two identical endcaps includes integrally casting the two identical endcaps from zinc.

130. The method of claim 118, wherein said forming a forearm extension includes forming the forearm extension having a coupling at the first end.

131. The method of claim 118, wherein said forming a forearm extension includes forming the forearm extension having a U-shaped body.

132. A method of forming an extension arm that adjustably mounts a device to a support mount, the method comprising:

integrally casting an upper channel that includes a roller at each end and a threaded hole contained therein;

integrally casting a lower channel that includes a roller at each end;

forming a first end cap including a clevis;

forming a second end cap;

forming a forearm extension having a body, a first end for connecting to the second end cap and a second end for connecting to the device;

threadedly mounting a ball stud in the threaded hole of the upper channel;

connecting one end of a gas spring to the ball stud and a second end of the gas spring to a fastening member of the clevis;

attaching the upper channel, the lower channel, the first end cap and the second end cap to form a parallelogram; and

connecting the first end of the forearm extension and the second end cap.

133. The method of claim 132, wherein said forming the first end cap includes

forming a partially enclosed housing having a first endwall, a second endwall and at least one sidewall, wherein the first endwall contains a hole therein, and the second endwall has a shaft connected thereto;

forming a pair of shelves disposed within the partially enclosed housing near the second endwall, the pair of shelves forming a groove therebetween;

forming a rod including a first end having a shaped opening, a shoulder adjacent to the first end, a threaded portion, and a

second end;

threading the rod through a hole in the clevis;

placing the first end of the rod within the hole in the first endwall until the shoulder abuts an inner surface of the first endwall;

placing the second end of the rod within the groove; and securing the second end of the rod by placing a retainer over the rod and connecting the retainer to the shelves.

134. The method of claim 132, wherein said forming the second end cap includes

forming a partially enclosed housing having a first endwall, a second endwall and at least one sidewall, wherein the first endwall contains a hole therein, and the second endwall has a shaft connected thereto; and

forming a pair of shelves disposed within the partially enclosed housing near the second endwall, the pair of shelves forming a groove therebetween.

135. The method of claim 132, wherein said integrally casting the upper channel includes integrally casting the upper channel from zinc.

136. The method of claim 132, wherein said integrally

casting the lower channel includes integrally casting the lower channel from zinc.

137. The method of claim 132, wherein said forming a lower channel includes forming the lower channel with the roller at each end and a cable channel aperture in a lower surface.

138. The method of claim 132, further comprising placing a cover within the cable channel aperture.

139. A method of forming an extension arm that adjustably mounts a device to a support mount, the method comprising:

forming an upper channel that includes a roller at each end and a threaded hole contained therein;

forming a lower channel that includes a roller at each end;

forming a first end cap including a clevis;

forming a second end cap including a shaft;

forming a forearm extension having a body, a coupling for connecting to the second end cap and means for connecting to the device;

threadedly mounting a ball stud in the threaded hole of the upper channel;

connecting one end of a gas spring to the ball stud and a second end of the gas spring to a fastening member of the clevis;

attaching the upper channel, the lower channel, the first end cap and the second end cap to form a parallelogram; and connecting the coupling of the forearm extension to the shaft of the second end cap.

140. The method of claim 139, wherein said forming a forearm extension includes forming the forearm extension having a U-shaped body.

141. The method of claim 139, wherein said forming a forearm extension includes forming the forearm extension having a coupling for connecting to the device.

142. The method of claim 141, further comprising locating a set screw within a sidewall of the device coupling.

143. The method of claim 141, wherein said forming a forearm extension includes forming the forearm extension having a plurality of grooves within an inner surface of the device coupling.

144. The method of claim 139, further comprising locating a set screw within a sidewall of the shaft coupling.



145. The method of claim 139, wherein said forming a forearm extension includes forming the forearm extension having a plurality of grooves within an inner surface of the shaft coupling.

146. The method of claim 139, wherein said forming an upper channel includes integrally casting the upper channel including the rollers and the threaded hole contained therein.

147. The method of claim 146, wherein said integrally casting the upper channel includes integrally casting the upper channel from zinc.

148. The method of claim 138, wherein said forming a lower channel includes integrally casting the lower channel including the rollers.

149. The method of claim 139, wherein said integrally casting the lower channel includes integrally casting the lower channel from zinc.

150. The method of claim 139, wherein said forming a lower channel includes forming the lower channel with the rollers and a cable channel aperture in a lower surface.

151. A method of forming end caps for use in an extension arm that adjustably mounts a device to a support mount, the method comprising forming two partially enclosed housings, each housing having a first endwall with a hole formed therein, a second endwall with a shaft connected thereto, at least one sidewall, and a pair of shelves disposed within the partially enclosed housing adjacent to the second endwall, the pair of shelves forming a groove therebetween.

152. The method of claim 151, further comprising forming a rod including a first end having a shaped opening, a shoulder adjacent to the first end, a threaded portion, and a second end;

threading the rod through a hole in a clevis;

placing the first end of the rod within the hole in the first endwall of a first one of the partially enclosed housings until the shoulder abuts an inner surface of the first endwall;

placing the second end of the rod within the groove in the first one of the partially enclosed housings; and

securing the second end of the rod by placing a retainer over the rod and attaching the retainer to the shelves.

153. The method of claim 151, wherein said forming two

partially enclosed housings includes integrally casting the two partially enclosed housings including the endwalls, the shaft, the at least one sidewall, and the pair of shelves.

154. The method of claim 153, wherein said integrally casting the two partially enclosed housings includes integrally casting the two partially enclosed housings from zinc.

155. The method of claim 151, wherein said forming two partially enclosed housings includes forming the two partially enclosed housings each having stops located within the partially enclosed housings adjacent to the first endwall and the second endwall.

156. The method of claim 151, wherein said forming two partially enclosed housings includes forming the two partially enclosed housings each having a pair of trough walls within the partially enclosed housings, the pair of trough walls forming a trough therebetween.

157. A method of forming channels for use in an extension arm that adjustably mounts a device to a support mount, the method comprising:

integrally casting an upper channel that includes a roller

at each end and a threaded hole formed therein; and

integrally casting a lower channel that includes a roller at each end.

158. The method of claim 157, further comprising painting an outer surface of the upper channel and the lower channel.

159. The method of claim 158, further comprising drilling holes in a center of each roller subsequent to said painting.

160. The method of claim 157, wherein said integrally casting the upper channel includes integrally casting the upper channel from zinc.

161. The method of claim 157, wherein said integrally casting the lower channel includes integrally casting the lower channel from zinc.

162. The method of claim 157, wherein said integrally casting a lower channel includes integrally casting the lower channel with the rollers and a cable channel aperture in a lower surface.

163. The method of claim 162, further comprising placing a

cover within the cable channel aperture.

164. The method of claim 157, further comprising threadedly mounting a ball stud in the threaded hole of the upper channel.

165. A method of forming a forearm extension for use in an extension arm that adjustably mounts a device to a support mount, the method comprising forming a body having a first end with a coupling and a second end having means for connecting to the device.

166. The method of claim 165, wherein said forming a forearm extension includes forming the forearm extension having a U-shaped body.

167. The method of claim 165, wherein said forming a forearm extension includes forming the forearm extension having a coupling for connecting to the device.

168. The method of claim 167, further comprising locating a set screw within a sidewall of the device coupling.

169. The method of claim 167, wherein said forming a forearm extension includes forming the forearm extension having a plurality of grooves within an inner surface of the device

coupling.

170. The method of claim 165, further comprising locating a set screw within a sidewall of the first end coupling.

171. The method of claim 165, wherein said forming a forearm extension includes forming the forearm extension having a plurality of grooves within an inner surface of the first end coupling.

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